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MINERALS PROGRAM
FILE COPY

September 13, 1990

TO: Wayne Hedberg, Permit Supervisor

FROM: Tony Gallegos, Reclamation Engineer *dag*

RE: Review of Large Mine Operation Revision, Iron Mountain Mine, Geneva Steel Company, M/021/008, Iron County, Utah

NOTHING ON COMSTOCK?

Geneva Steel Company has submitted a revision request in the form of three documents: 1) a Notice of Intent to Commence Large Mining Operations referring to the Iron Mountain Mine and including the Chesapeak/Excelsior area, the Burke area, and Tip Top area; 2) a Notice of Intention to Revise Mining Operations covered in the Chesapeak/Excelsior Small Mining Permit by including the Tip Top area; and 3) a Narrative describing the Iron Mountain area, the Burke Fines, Loadout and Pit areas, the Chesapeak/Excelsior area, and the Tip Top area. As suggested by the Division, the operator wishes to combine all the company's mining operations in the area into one permit.

From reviewing the Iron Mountain Mine, M/021/008 file, I find the current permit status to be described as follows: A CD type bond for \$81,000 (1994) is held by the Division for reclamation of all areas currently defined by the Iron Mountain permit. The Mountain Lion Pit and Dump areas were officially transferred to the Iron Mountain property in March 1989 and, therefore, are included under the existing permit. The Burke Pit and Blackhawk Fines are both pre-law sites which were to be included in the Iron Mountain permit by a revision, although no formal revision documenting this was found. Water from the Blackhawk Pit is being used in the wet magnetic separation of the fines and then filtered through earthen basins into the Blowout pit. Both pits were supposedly included in the Iron Mountain permit by means of a revision approved in 1986. The Chesapeak/Excelsior area is permitted under the Small Mining Notice of Intent S/021/010, with an area of 5 acres and no reclamation bond. The Tip Top area involves approximately 4 acres and is neither permitted nor bonded. The Burke Loadout is referenced in the operators narrative as being included with the Burke Fines and the Burke Pit which is "considered as one" with the Burke Fines and Loadout, which, according to the narrative, is already covered by a bond. It is unclear whether or not the Burke Stockpile mentioned in page one of the narrative is the same as the Burke Fines.

In general, the revision materials submitted are disjoint and lack sufficient detail to make an adequate review of the proposal. The following are my comments from reviewing the materials submitted.

R613-004-105. Maps Drawings and Photographs

The operator needs to provide a surface facilities map which includes, but is not limited to, buildings, stationary mining/processing equipment, roads, utilities, power lines, proposed drainage control structures, topsoil storage areas, tailings or waste facilities, disposal areas for overburden, solid and liquid wastes and waste water discharge treatment and containment facilities. The map(s) should include a border clearly outlining the acreage proposed to be disturbed by mining operations. Due to the large extent of the area involved by combining all of the operations together, the operator may wish to submit several maps of a scale of 1" = 500' which fit together or a larger scale map (1" = 1000') showing the entire operation with references to detail maps of smaller areas.

Due to the large area involved and number of scattered facilities, the following items should be shown in additional maps:

- 1) Regraded slopes to be left at steeper than 2h:1v;
- 2) Plans, profiles and cross sections of roads, pads, or other earthen structures to be left as part of the post-mining land use;
- 3) Water impounding structures with embankments greater than 20 ft in height or greater than 20 acre feet in storage capacity;
- 4) Surface areas which will be disturbed by the operator but will not be reclaimed, such as solid rock slopes, cuts, roads, or sites of buildings or surface facilities to be left as part of the post-mining land use;
- 5) Pre-law areas which have and have not been disturbed by the operator;
- 6) A reclamation activities and treatment map to identify the location and the extent of the reclamation work to be accomplished by the operator upon cessation of mining operations. (These drawings shall be utilized to determine adequate bonding and reclamation practices for the site).

R613-004-106. Operation Plan

The operator needs to provide the following information:

- 1) Identify any deleterious or acid forming materials present or to be left on the site as a result of mining or mining processing;
- 2) Estimate the acreage proposed to be disturbed and/or reclaimed annually or sequentially;

- 3) A description of the nature of the materials to be mined or processed including waste/overburden materials and the estimated annual tonnages of ore and waste materials to be mined;
- 4) Proposed location and size of ore and waste stockpiles, tailings facilities and water storage/treatment ponds.

R613-004-107. Operation Practices

The operator needs to conform to the practices outlined in this section of the rules regarding public safety and welfare, unless granted a variance from the Division in writing, specifically:

- 1) the disposal of trash, scrap metal, wood, and extraneous debris;
- 2) the posting of appropriate warning signs in locations where public access to operations is readily available;
- 3) the construction of berms, fences and/or barriers above highwalls or other excavations;
- 4) if natural channels are to be affected by the mining operation, then the operator shall take appropriate measures to avoid or minimize environmental damage.

R613-004-109. Impact Assessment

The operator needs to provide a general narrative description identifying potential surface and/or subsurface impacts. This description should include the impacts of mining operations on slope stability, erosion control, air quality, and public health and safety and any actions which are proposed to mitigate any of the above mentioned impacts.

R613-004-110. Reclamation Plan

The operator needs to include a reclamation plan, including maps or drawings, consisting of a narrative description of the proposed reclamation. The narrative should include, but not be limited to:

- 1) A description of the manner and extent to which roads, highwalls, slopes, impoundments, drainages, pits, ponds, piles, shafts, adits, drill holes, and similar structures will be reclaimed;

- 2) A detailed description of any surface facilities to be left as part of the post-mining land use, including but not limited to, buildings, utilities, roads, pads, ponds, pits and surface equipment;
- 3) A description of the treatment, location and disposition of any deleterious or acid-forming materials generated and left onsite, including a map showing the location of such materials upon the completion of reclamation.

R613-004-111. Reclamation Practices

During reclamation, the operator shall conform to the practices regarding public safety and welfare listed under this rule unless the Division grants a variance in writing. Some of these practices have been presented in Rule R613-004-107, Operation Practices. More specifically:

- 1) If natural channels have been affected by mining operations then reclamation must be performed such that the channels will be left in a stable condition with respect to actual and reasonably expected water flow so as to avoid or minimize future damage to the hydrologic system;
- 2) Reclamation shall be conducted in a manner such that sediment from disturbed areas is adequately controlled;
- 3) Waste piles, spoil piles and fills shall be regraded to a stable configuration and shall be sloped to minimize safety hazards and erosion while providing for successful revegetation;
- 4) Highwalls shall be reclaimed and stabilized by backfilling against them or by cutting the wall back to achieve a slope angle of 45 degrees or less;
- 5) Onsite roads and pads shall be reclaimed unless they are to remain as part of the post-mining land use, in which case they must include adequate surface drainage structures and be in a condition suitable for continued use;
- 6) Structures, rail lines, utility connections, equipment and debris shall be buried or removed.

R613-004-112. Variance

The operator has requested variances for pit walls and topsoil requirements. In order to grant these variances the following information must be provided by the operator:

- 1) The variance requested and the area(s) that would be affected by the variance;

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- 2) Justification for the variance;
- 3) Alternate methods or measures to be utilized.

R613-004-113. Surety

A reclamation cost estimate cannot be calculated until the additional information requested above is provided by the operator.

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